

REVISIONS TO ABSTRACT

Please delete in its entirety and substitute:

An X-ray detector has a photo-sensitive detector layer (10) and a scintillation layer (30) for the conversion of X-rays (X) into photons (ν). Photons (ν) are reflected back into the scintillation layer (30) by a reflector (40) that is provided on the scintillation layer (30) for an improved signal gain and signal-to-noise ratio. The reflectivity of the reflector (40) is externally controllable. This is achieved in one embodiment by a reflective layer (41, 42, 43) of E-Ink being disposed between two electrodes (44a, 44b). Thus the reflectivity can be decreased at sufficiently high X-ray doses in order to improve image sharpness and dynamic range of the detector.